WHAT IS CLAIMED IS:

1. A method of determining overall lightness contrast of an image comprising:

extracting pixel values from said image;

calculating an image edge contrast based on said pixel values;

calculating area contrast based on said pixel values;

calculating image range based on said pixel values;

calculating relative average lightness based on said pixel values, and

calculating said overall lightness contrast of said image by combining said edge contrast, said image range, said area contrast and said relative average lightness.

2. The method in claim 1, wherein said image edge contrast is calculated in a process comprising:

determining a local edge contrast; and

assessing a standard deviation around a mean value for said local edge contrast across an entire image to produce said image edge contrast.

3. The method in claim 1, wherein said area contrast is calculated in a process comprising:

clustering lightness data into lightness areas;

counting a number of said lightness areas;

determining a mean lightness and a number of pixels in each lightness area;

computing weighting coefficients for each pair of lightness areas;

computing weighted differences in mean lightness for each pair of lightness areas; and

determining a sum of said weighted differences to produce said area contrast.

4. The method in claim 1, wherein said image range is calculated in a process comprising:

choosing a maximum lightness value and a minimum lightness value;

adding said maximum lightness value and said minimum lightness value to compute a sum;

subtracting said minimum lightness value from said maximum lightness value to compute a difference; and

dividing said difference by said sum to produce said image range.

5. The method in claim 1, wherein said calculation of said relative average lightness includes calculating a first average lightness relative to an image background and calculating a second average lightness relative to a pivot point of a tone reproduction curve in a process comprising:

computing an arithmetic mean of pixel lightness values;

computing a first absolute value of a difference between a mean lightness of said image and a lightness of said image background to produce said first average lightness; and

computing a second absolute value of a difference between said mean lightness and a lightness value of said pivot point of said tone reproduction curve to produce said second average lightness.

6. The method in claim 1, wherein said overall contrast is calculated in a linear combination of said image edge contrast, said area contrast, said image range, and said relative average lightness.

7. The method in claim 1, wherein said overall contrast is calculated in a weighted combination of said image edge contrast, said area contrast, said image range, and said relative average lightness.

8. A method of determining overall lightness contrast of an image comprising:

A) performing at least two of the following processes:

1) extracting pixel values from said image;

2) calculating an image edge contrast based on said pixel values;

3) calculating area contrast based on said pixel values;

4) calculating image range based on said pixel values; and

5) calculating relative average lightness based on said pixel values; and

B) calculating said overall lightness contrast of said image by combining at least two of the following: said edge contrast, said image range, said area contrast and said relative average lightness.

9. The method in claim 8, wherein said image edge contrast is calculated in a process comprising:

determining a local edge contrast; and

assessing a standard deviation around a mean value for said local edge contrast across an entire image to produce said image edge contrast.

10. The method in claim 8, wherein said area contrast is calculated in a process comprising:

clustering lightness data into lightness areas;

counting a number of said lightness areas;

determining a mean lightness and a number of pixels in each lightness area;

computing weighting coefficients for each pair of lightness areas;

computing weighted differences in mean lightness for each pair of lightness areas; and

determining a sum of said weighted differences to produce said area contrast.

11. The method in claim 8, wherein said image range is calculated in a process comprising:

choosing a maximum lightness value and a minimum lightness value;

adding said maximum lightness value and said minimum lightness value to compute a sum;

subtracting said minimum lightness value from said maximum lightness value to compute a difference; and

dividing said difference by said sum to produce said image range.

12. The method in claim 8, wherein said calculating of said relative average lightness includes calculating a first average lightness relative to an image background and calculating a second average lightness relative to a pivot point of a tone reproduction curve in a process comprising:

computing an arithmetic mean of pixel lightness values;

computing an first absolute value of a difference between a mean lightness of said image and a lightness of said image background to produce said first average lightness; and

computing a second absolute value of a difference between said mean lightness and a lightness value of said pivot point of said tone reproduction curve to produce said second average lightness.

13. The method in claim 8, wherein said overall contrast is calculated in a linear combination of at least two of said image edge contrast, said area contrast, said image range, and said relative average lightness.

14. The method in claim 8, wherein said overall contrast is calculated in a weighted combination of at least two of said image edge contrast, said area contrast, said image range, and said relative average lightness.

15. A method of determining overall lightness contrast of an image comprising:

extracting pixel values from said image;

calculating an image edge contrast based on said pixel values;

calculating color area contrast based on said pixel values;

calculating image range based on said pixel values;

calculating relative average lightness based on said pixel values, and

calculating said overall lightness contrast of said image by combining said edge contrast, said image range, said color area contrast and said relative average lightness.

16. The method in claim 15, wherein said image edge contrast is calculated in a process comprising:

determining a local edge contrast; and

assessing a standard deviation around a mean value for said local edge contrast across an entire image to produce said image edge contrast.

17. The method in claim 15, wherein said color area contrast is calculated in a process comprising:

clustering color data into color areas;

counting a number of said color areas;

determining color values and a number of pixels in each color area;

computing weighting coefficients for each pair of color areas;

computing weighted differences in mean color for each pair of color areas; and

determining a sum of said weighted differences to produce said color area contrast.

18. The method in claim 15, wherein said image range is calculated in a process comprising:

choosing a maximum lightness value and a minimum lightness value;

adding said maximum lightness value and said minimum lightness value to compute a sum;

subtracting said minimum lightness value from said maximum lightness value to compute a difference; and

dividing said difference by said sum to produce said image range.

19. The method in claim 15, wherein said average lightness includes calculating a first average lightness relative to an image background and calculating a second average lightness relative to a pivot point of a tone reproduction curve in a process comprising:

computing an arithmetic mean of pixel lightness values;

computing a first absolute value of a difference between a mean lightness of said image and a lightness of said image background to produce said first average lightness; and

computing a second absolute value of a difference between said mean lightness and a lightness value of said pivot point of said tone reproduction curve to produce said second average lightness.

20. The method in claim 15, wherein said overall contrast is calculated in a linear combination of said image edge contrast, said color area contrast, said image range, and said relative average lightness.

21. The method in claim 15, wherein said overall contrast is calculated in a weighted combination of said image edge contrast, said color area contrast, said image range, and said relative average lightness.

22. A computer program product for determining overall lightness contrast of an image, said computer program product comprising: a computer readable storage medium having a computer program stored thereon for performing a method comprising:

extracting pixel values from said image;

calculating an image edge contrast based on said pixel values;

calculating area contrast based on said pixel values;

calculating image range based on said pixel values;

calculating relative average lightness based on said pixel values, and

calculating said overall lightness contrast of said image by combining said edge contrast, said image range, said area contrast and said relative average lightness.

23. The computer program product in claim 22, wherein said image edge contrast is calculated in a process comprising:

determining a local edge contrast; and

assessing a standard deviation around a mean value for said local edge contrast across an entire image to produce said image edge contrast.

24. The computer program product in claim 22, wherein said area contrast is calculated in a process comprising:

clustering lightness data into lightness areas;

counting a number of said lightness areas;

determining a mean lightness and a number of pixels in each lightness area;

computing weighting coefficients for each pair of lightness areas;

computing weighted differences in mean lightness for each pair of lightness areas; and

determining a sum of said weighted differences to produce said area contrast.

25. The computer program product in claim 22, wherein said image range is calculated in a process comprising:

choosing a maximum lightness value and a minimum lightness value;

adding said maximum lightness value and said minimum lightness value to compute a sum;

subtracting said minimum lightness value from said maximum lightness value to compute a difference; and

dividing said difference by said sum to produce said image range.

26. The computer program product in claim 22, wherein said calculation of said relative average lightness includes calculating a first average lightness relative to an image background and calculating a second average lightness relative to a pivot point of a tone reproduction curve in a process comprising:

computing an arithmetic mean of pixel lightness values;

computing a first absolute value of a difference between a mean lightness of said image and a lightness of said image background to produce said first average lightness; and

computing a second absolute value of a difference between said mean lightness and a lightness value of said pivot point of said tone reproduction curve to produce said second average lightness.

27. The computer program product in claim 22, wherein said overall contrast is calculated in a linear combination of said image edge contrast, said area contrast, said image range, and said relative average lightness.

28. The computer program product in claim 22, wherein said overall contrast is calculated in a weighted combination of said image edge contrast, said area contrast, said image range, and said relative average lightness.